

**COMPOSITIONS AND METHODS FOR REESTABLISHING GENE
TRANSCRIPTION THROUGH INHIBITION OF DNA METHYLATION
AND HISTONE DEACETYLASE**

Inventor: Jorge F. DiMartino

5

ABSTRACT

Compositions and methods are provided for treating diseases associated with
aberrant silencing of gene expression such as cancer by reestablishing the gene

10 expression through inhibition of DNA hypomethylation and histone deacetylase.

The method comprises: administering to a patient suffering from the disease a
therapeutically effective amount of a DNA methylation inhibitor such as a cysteine
analog such as decitabine, in combination with an effective amount of histone
deacetylase inhibitor such as hydroxamic acid, cyclic peptide, benzamide, butyrate,

15 and depudecin.